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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,193	10/12/2004	Norbert Herfert	29827/3836A	8679

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EXAMINER

SIMONE, CATHERINE A

ART UNIT	PAPER NUMBER
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1772

MAIL DATE	DELIVERY MODE
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09/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/511,193

Applicant(s)

HERFERT ET AL.

Examiner

Catherine Simone

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/11/05.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's request for reconsideration of the restriction requirement of the previous Office action is persuasive and, therefore, the restriction requirement is withdrawn.

Claim Objections

1. Claim 22 is objected to because of the following informalities: Claim 22, which depends from claim 21, recites "the method". There is no antecedent basis for "the method". Thus, it is believed claim 22 should be corrected to recite "the diaper". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-16 and 18-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roe (US 5,372,766) in view of Beihoffer et al. (US 6,072,101).

Regarding claim 1, Roe teaches a flexible absorbent sheet (col. 3, lines 30-33 and col. 4, lines 45-55) comprising a superabsorbent polymer component (precursor particles) (col. 5, lines 3-8) comprising at least one acidic water-absorbing resin (col. 6, lines 26-62) and a plasticizing component in an amount of about 0.1 to about 200 parts by weight per 100 weight parts of the superabsorbent polymer component (col. 18, lines 45-51 and col. 20, lines 15-22), wherein the

Art Unit: 1772

sheet inherently contains about 60% to 100%, by weight, of the superabsorbent polymer component (precursor particles), since the sheet is flexible and is being used to form an absorbent article such as a diaper, which is similar to that of Applicant's present invention.

However, Roe fails to teach the superabsorbent polymer component (precursor particles) comprising at least one unneutralized acidic water-absorbing resin and at least one unneutralized basic water-absorbing resin.

Beihoffer et al. teach multicomponent superabsorbent polymer particles that are useful in diapers and catamenial devices (col. 15, lines 48-51) and include at least one unneutralized acidic water-absorbing resin and at least one unneutralized basic water-absorbing resin (col. 4, lines 15-31) for the purpose of overcoming the salt poisoning effect and demonstrate an improved ability to absorb and retain electrolyte-containing liquids, like saline, blood, urine, and menses (col. 4, lines 32-36).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the superabsorbent polymer particles (precursor particles) in Roe to include at least one unneutralized acidic water-absorbing resin and at least one unneutralized basic water-absorbing resin as suggested by Beihoffer et al. in order to overcome the salt poisoning effect and demonstrate an improved ability to absorb and retain electrolyte-containing liquids, like saline, blood, urine, and menses.

Regarding claim 2, Beihoffer et al. teach superabsorbent polymer particles comprising discrete particles of the acidic resin and discrete particles of the basic resin (col. 4, lines 40-48) and it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the superabsorbent polymer particles (precursor particles) in Roe to

Art Unit: 1772

include discrete particles of acidic resin and discrete particles of basic resin as suggested by Beihoffer et al. in order to overcome the salt poisoning effect and demonstrate an improved ability to absorb and retain electrolyte-containing liquids, like saline, blood, urine, and menses.

Regarding claim 3, Beihoffer et al. teach multicomponent superabsorbent polymer particles wherein each particle has at least one microdomain of the acidic resin in contact with, or in close proximity to, at least one microdomain of the basic resin (col. 5, lines 5-9 and 55-58) and it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the superabsorbent polymer particles (precursor particles) in Roe to be multicomponent superabsorbent polymer particles wherein each particle has at least one microdomain of the acidic resin in contact with, or in close proximity to, at least one microdomain of the basic resin as suggested by Beihoffer et al. in order to overcome the salt poisoning effect and demonstrate an improved ability to absorb and retain electrolyte-containing liquids, like saline, blood, urine, and menses.

Regarding claim 4, note the superabsorbent polymer particles in Roe have a particle size distribution of about 10 to about 810 μm (col. 5, line 59 to col. 6, line 10).

Regarding claim 5, note the superabsorbent polymer particles in Roe have a particle size distribution of about 30 to about 375 μm (col. 5, line 59 to col. 6, line 10).

Regarding claim 6, note the superabsorbent polymer particles in Roe have a mass median particle size of less than about 400 μm (col. 5, line 59 to col. 6, line 10).

Regarding claim 7, note the acidic water-absorbing resin in Beihoffer et al. is polyacrylic acid (col. 4, lines 15-17).

Art Unit: 1772

Regarding claim 8, note the basic water-absorbing resin in Beihoffer et al. is a poly (dialkylaminoalkyl(meth)acrylamide) (col. 4, lines 17-21).

Regarding claims 9 and 10, note the plasticizer component in Roe is a polyhydroxy compound and is ethylene glycol (col. 19, lines 21-25).

Regarding claim 11, note the SAP component (particles) in Roe is internally plasticized (col. 3, lines 44-50).

Regarding claim 12, Beihoffer et al. teach the acidic resin comprising polyacrylic acid and the basic resin comprising poly(vinylamine) or polyethylenimine (col. 5, lines 9-15), and Roe teaches the plasticizing agent comprising glycerol (col. 19, lines 22-24).

Regarding claims 13 and 14, Roe teaches up to 40%, by weight in total, of an optional ingredient such as a nonwoven fiber (col. 19, lines 60-65 and col. 18, lines 1-3).

Regarding claim 15, the sheet in Roe inherently has a stiffness of less than about 6 mNm, since the sheet is flexible and is being used to form a diaper or catamenial device which is similar to that of Applicant's present invention.

Regarding claim 16, the sheet inherently has a density of about 0.3 to about 0.9 g/cc when the sheet of Roe is combined with the teachings of Beihoffer et al. and since the sheet is flexible and is being used in a diaper, which is similar to that of Applicant's present invention.

Regarding claims 18 and 19, Roe teaches an absorbent article such as a diaper or a catamenial device comprising the sheet (col. 22, lines 31-49).

Regarding claim 20, Roe teaches a diaper (col. 25, line 13) having a core comprising at least one of the absorbent sheet (col. 25, lines 17-20).

Art Unit: 1772

Regarding claim 21, Roe teaches the core comprising two to five of the absorbent sheets (col. 26, lines 46-52).

Regarding claim 22, note at least one of adjacent sheets has a wicking layer disposed between the sheets (col. 25, lines 62-67 and col. 26, lines 50-62).

Regarding claim 23, note a topsheet in contact with a first surface of the core, and a backsheet in contact with a second surface of the core which is opposite from the first core surface (col. 25, lines 5-6).

Regarding claim 24, note an acquisition layer (absorbent member 60) disposed between the topsheet 38 and the core 62 (Fig. 6 and col. 25, lines 55-67).

Regarding claim 25, note the diaper can be free of an acquisition layer (Fig. 4).

Regarding claim 26, note Roe is silent to the sheet having cellulosic fibers, hence the sheet is free of cellulosic fibers.

Regarding claim 27, note at least one of the sheets inherently comprises up to 25%, by weight, of nonwoven fibers (col. 17, line 60 to col. 18, line 3), since the sheet is flexible and is used as an absorbent core in a diaper, which is similar to that of Applicant's present invention.

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roe in view of Beihoffer et al. as applied to claim 1 above, and further in view of Wehrmeyer et al. (US 3,908,659).

Roe and Beihoffer et al. teach the presently claimed flexible absorbent sheet as shown above except for the sheet being embossed or needle punched.

Art Unit: 1772

Wehrmeyer et al. teach an absorbent pad structure for use in a diaper construction that has an embossed pattern for the purpose of providing high fluid capacity, enhanced wicking, enhanced surface dryness and exhibit enhanced surface dryness and softness impression (col. 3, lines 13-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the flexible absorbent sheet in Roe to be embossed as suggested by Wehrmeyer et al. in order to provide a sheet with high fluid capacity, enhanced wicking, enhanced surface dryness and that exhibits enhanced surface dryness and softness impression.

Conclusion

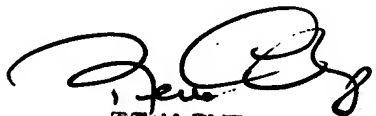
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (571) 272-1501. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1772

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Catherine A. Simone/
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Examiner
Art Unit 1772
August 30, 2007


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